

United States  
Environmental Protection  
Agency

Air and Radiation  
(6602J)

EPA 402-R-96-020  
June 1997

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# **Implementation of the Waste Isolation Pilot Plant Land Withdrawal Act**

## **FY 1996 Report to Congress**

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## **EXECUTIVE SUMMARY**

The Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act (the Act), Pub. L. No. 102-579, was signed by the President on October 30, 1992. The Act gives the U.S. Environmental Protection Agency (EPA or the Agency) the authority to certify WIPP's compliance with standards developed by EPA for disposal of radioactive waste. This Act supplements EPA's authority, under the Atomic Energy Act and Reorganization Plan No. 3 of 1970, to establish environmental standards that protect the public and the environment from radioactive materials. The Act prescribed the framework for EPA's regulatory oversight of the WIPP disposal system.

EPA's responsibilities under the Act include:

- 1) issuing final radioactive waste disposal standards that apply to all spent nuclear fuel, high-level radioactive waste, and transuranic waste disposal facilities not characterized under Section 113(a) of the Nuclear Waste Policy Act (notably the proposed repository at Yucca Mountain);
- 2) issuing criteria for the certification of WIPP's compliance with the Agency's final radioactive waste disposal regulations;
- 3) certifying WIPP's compliance with the Agency's radioactive waste disposal standards initially, and, if certified, every five years thereafter; and
- 4) verifying WIPP's compliance with all other applicable federal environmental laws and regulations.

EPA was originally required by the Act to review DOE's test phase and retrieval plans for tests using radioactive waste at the WIPP and, through rulemaking, approve or disapprove these plans. On October 21, 1993, DOE announced that radioactive waste tests would not be conducted at the WIPP. Instead, the tests would be replaced with an expanded laboratory program using radioactive and hazardous wastes. The 1996 WIPP LWA Amendments, Pub. L. No. 104-201, subsequently removed all language pertaining to the test phase.

In Fiscal Year 1996 the EPA WIPP program:

- Issued final criteria (40 CFR Part 194) for certifying compliance of the WIPP with the radioactive waste disposal standards (40 CFR Part 191). The final criteria were published in the *Federal Register* on February 9, 1996.
- Published Compliance Application Guidance in March 1996 to assist DOE with the preparation of the Compliance Certification Application (CCA) for the WIPP and, in turn, to assist in EPA's review of the CCA for completeness and to enhance the readability and accessibility of the CCA for EPA and public scrutiny.
- Held six Technical Exchange meetings with DOE on the following topics: DOE's actinide source term program; the WIPP waste information system; scenario development and screening methodology used by DOE in its WIPP performance assessment; Culebra hydrogeology; passive institutional controls and engineered barriers; and Castile brine reservoir estimates and fluid injection activities. These meetings were open to the public.
- Sent to DOE two sets of technical comments on the Draft Compliance Certification Application submitted to EPA in March 1995, and sent comments on a final draft application submitted to EPA in the summer of 1996. These comments have been placed in the public dockets.
- Published a notice in the *Federal Register* on September 5, 1996, announcing the availability of draft guidance for implementation of standards for management and storage of transuranic waste at the WIPP (Subpart A of 40 CFR 191) for public comment.
- Published (in English and Spanish) *EPA's Communications Plan for the WIPP* and a brochure entitled *Public Participation: EPA and the WIPP*; maintained public dockets in NM and Washington, DC; managed a toll-free information line, the WIPP information on the Agency's TTN Electronic Bulletin Board, and the WIPP Internet home page.

In FY 96, EPA funded 21 staff positions at EPA Headquarters, 1 position at EPA's Region 6 office in Dallas, TX, and 2 positions at EPA's Office of Radiation and Indoor Air (ORIA) Radiation & Indoor Environments National Laboratory in Las Vegas, NV, as well as \$2.8 million in contract support for the WIPP program.

EPA received DOE's final Compliance Certification Application on October 29, 1996. In FY 97, the Agency will continue to review the application. EPA asked DOE for additional information. DOE has provided EPA with sufficient information for the Agency to determine that the Application is complete. On May 16, 1997 the

Administrator informed DOE, in writing, that the Application is complete. This completeness determination begins a one-year period during which the Agency will determine whether or not the WIPP complies with its radioactive waste disposal standards. The Agency expects to make its decision on the application by Spring 1998. Because of the information and regulatory analyses necessary, this date is subject to change depending on when DOE submits additional EPA-requested information.

## INTRODUCTION

This report responds to the requirement in Section 23(a)(2) of the Waste Isolation Pilot Plant Land Withdrawal Act (the Act), whereby EPA must submit an annual report to Congress "on the status of, and resources required for the fulfillment of the Administrator's responsibilities under this Act."

The Act, as amended in 1996, gives EPA the authority to oversee many of DOE's activities at the Waste Isolation Pilot Plant (WIPP) throughout the facility's operational and decommissioning phases, if those phases in fact proceed. The WIPP, which is under development by DOE, is a potential long-term geologic disposal facility for transuranic radioactive wastes in southeastern New Mexico. Transuranic wastes are long-lived radioactive wastes generated as by-products from nuclear weapons production.

The Act requires EPA to take the following regulatory actions:

- Issue Radioactive Waste Disposal Standards  
Develop environmental protection standards for the disposal of spent nuclear fuel, high-level waste and transuranic radioactive wastes, which will apply to all potential disposal sites except those characterized under the Nuclear Waste Policy Act, as amended.
- Develop Compliance Criteria  
Establish criteria to determine whether the WIPP will comply with the Agency's radioactive waste disposal standards (40 CFR Part 191).
- Conduct a Compliance Certification  
Certify by rulemaking whether or not the WIPP complies with the Agency's radioactive waste disposal standards.
- Recertify Periodically  
Determine every five years whether or not the WIPP facility continues to be in compliance with the Agency's radioactive waste disposal standards.

In addition to these regulatory actions, EPA must determine that the WIPP complies with all applicable federal laws pertaining to public health and safety of the environment, and regulations and permits under such laws. The Act calls for DOE to submit documentation of continued compliance with these requirements biennially (beginning in 1994), and for EPA to determine subsequently whether the WIPP is in compliance.

## **Organization of the Report**

This report contains four main sections:

- (1) Implementation Principles – the foundation of all EPA WIPP activities;
- (2) EPA Responsibilities Under the Act;
- (3) Communications and Consultation Activities; and
- (4) EPA Regulatory Responsibilities Under the Act.

A schedule of important regulatory dates through Fiscal Year 1996 and into Fiscal Year 1997 is provided at the end of the report.



## **IMPLEMENTATION PRINCIPLES**

The Act provides EPA with extensive responsibility for determining whether the WIPP complies with all applicable Federal environmental laws and regulations. The following principles guide EPA's activities:

### ***Protection***

- EPA strives to develop a regulatory program designed to protect present and future generations from the risks posed by potential disposal of waste at the WIPP.

### ***Good Science***

- EPA bases its decisions on the best available scientific and technical data, while recognizing that uncertainties about the performance of the WIPP will always exist.

### ***Consultation***

- EPA recognizes the important roles of state and local governments, citizen and environmental groups, individual members of the public, industry, and other federal agencies. The Agency commits to conducting an open public process that includes interaction with these groups and other interested parties.

### ***Commitment***

- EPA will establish and meet commitments to implement the WIPP legislation effectively and consistently within its legal authority.

## **EPA RESPONSIBILITIES UNDER THE ACT**

### **Management**

To ensure that EPA's oversight responsibilities are performed in a timely and scientifically credible manner, the Agency established an intra-agency committee of senior management to expedite the resolution of policy issues.

The Office of Radiation and Indoor Air (ORIA), which is in the Office of Air and Radiation (OAR), is charged with the primary responsibility for implementing the Act. Other offices with significant roles include: the Office of Solid Waste (OSW), the Office of General Counsel (OGC), and EPA Region 6. OSW and EPA Region 6, together with the State of New Mexico, are regulating the WIPP's compliance with the Resource Conservation and Recovery Act (RCRA). Region 6 also is overseeing DOE's biennial demonstration of compliance with all applicable Federal environmental laws other than the disposal standards. Other EPA offices involved in the WIPP program are the Office of Policy, Planning, and Evaluation (OPPE), the Office of Enforcement and Compliance Assurance (OECA), the Office of Water (OW), and the Office of Research and Development (ORD).

Within ORIA, the Center for WIPP in the Radiation Protection Division (RPD) executes most of EPA's responsibilities under the Act. RPD's Outreach Team leads ORIA's WIPP public outreach efforts. Staff-level implementation of the Act is coordinated through intra-agency work groups established by RPD.

### **Resources**

The Act authorizes DOE to transfer funds appropriated for environmental restoration and waste management to the EPA effort (up to \$14 million in FY 1994) through the year 2001. In FY 93, an Interagency Agreement between DOE and EPA funded 33 positions and \$6.5 million for EPA WIPP activities.

In FY 94, DOE funded 25 HQ positions and four positions in the Region, and \$4 million in contract support for WIPP. EPA funded an additional three positions at Headquarters. This level of funding was produced by an interagency agreement between EPA and DOE covering both the WIPP program and development of radioactive waste cleanup standards.

In FY 95, EPA retained the FY94 level of resources for WIPP. After Congressional reductions, ORIA received \$3.4 million from the EPA appropriation for WIPP activities. DOE did not provide any additional funding to EPA.

In FY 96, EPA funded 21 staff positions at Headquarters, 1 position at EPA's Region 6 office in Dallas, TX, and 2 of which were at EPA's ORIA Laboratory in Las Vegas, NV as well as \$2.8 million in contract support for WIPP.

## COMMUNICATIONS AND CONSULTATION ACTIVITIES

EPA believes that a successful communications and consultation program expedites the regulatory/oversight process and promotes sound public policy decisions. EPA continues to inform interested parties about its WIPP oversight functions and encourages public participation in the regulatory process.

### Communications Activities

EPA's toll-free WIPP Information Line continues to receive about 100 calls each month. The Line contains up-to-date, recorded information about public hearings and meetings, publications, and other EPA WIPP activities. Callers may listen to the recorded message in English or Spanish, add their name to the WIPP mailing list, request a WIPP publication, or leave a question for EPA staff.

In an ongoing effort to keep the public well-informed, EPA regularly places pertinent information on the WIPP in rulemaking dockets located in Carlsbad, Albuquerque, and Santa Fe, NM, and at EPA Headquarters in Washington, DC.

EPA develops and distributes public information materials that describe the Agency's regulatory role relative to WIPP. During FY 96, EPA published *EPA's Communications Plan for the WIPP*, which describes current and planned outreach efforts, and *Public Participation: EPA and the WIPP*, which describes opportunities for public involvement in EPA's regulatory process for the WIPP. Both documents were printed in English and Spanish and were sent to members of the WIPP mailing list. EPA *WIPP Updates* inform the public about EPA's activities associated with implementing the Act, including important issues and events. Another document, the *EPA WIPP Bulletin*, informs the public about EPA's WIPP oversight program activities. The *WIPP Bulletin* contains program updates, results of NACEPT WIPP Review Committee meetings, and articles on the activities of EPA's Office of Radiation and Indoor Air, Office of Solid Waste, Region 6, and Las Vegas Laboratory. EPA continues to update its mailing list of individuals and organizations interested in receiving information on the Agency's WIPP activities.

WIPP documents are also available to the public through the Agency's Technology Transfer Network (TTN), an electronic bulletin board. The TTN contains documents related to EPA's activities under the Act, such as regulatory support documents and comments on draft certification applications. The network may be accessed for the cost of a long-distance call, or via the Internet. In addition to the TTN, EPA WIPP documents can now be accessed directly through our new WIPP Home Page on the Internet. The WIPP Home Page address is <http://www.EPA.gov/radiation/WIPP/>.

Agency officials participated in national, international, state, and industry-sponsored conferences and meetings on radioactive waste management and disposal issues, including meetings sponsored by the National Academy of Sciences, the American Nuclear Society, the American Society of Civil Engineers, the American Society of Mechanical Engineers, the International Atomic Energy Agency, the Health Physics Society, and the States of Arizona, New Mexico, and Nevada. They also conducted briefings for interested members of Congress.

Since enactment of the Act, EPA has issued numerous press releases or advisories concerning its WIPP-related actions to national and New Mexican media outlets.

### **Consultation Activities**

In 1993, EPA established a WIPP Review Committee under the NACEPT to provide independent counsel to the Agency on complex technical issues related to EPA's implementation of the Act. No meetings of the WIPP Review Committee were held in FY 96, although the Committee did convene in 1993 and 1995. Those meetings were held in New Mexico and were open to the public.

EPA and DOE meet periodically at technical exchanges either in New Mexico or Washington, DC. The public is invited to attend and observe these meetings. Technical exchange meetings are announced on EPA's toll-free WIPP Information Line. Summaries of technical exchange meetings and notes summarizing significant phone conversations between EPA and DOE technical staff are placed in the public dockets.

## **EPA'S REGULATORY RESPONSIBILITIES UNDER WIPP**

### **40 CFR Part 191: Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes**

The Act requires that EPA promulgate final standards for the disposal of spent nuclear fuel, high-level and transuranic radioactive wastes. The final standards were published in the *Federal Register* on December 20, 1993. Background information on the standards and a summary of their development and content are presented here.

#### **Background**

On September 19, 1985, EPA issued final Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes in Part 191 of Chapter 40 of the Code of Federal Regulations (40 CFR Part 191). They appear in Volume 50 of the *Federal Register* beginning on page 38066. The standards for disposal consist of several types of requirements. According to the Containment Requirements (Section 191.13), waste disposal systems must be designed with the reasonable expectation that the total release of radionuclides—from a disposal facility to the accessible environment—does not exceed specified levels for 10,000 years. The Assurance Requirements (Section 191.14) are intended to provide confidence in reducing the likelihood of radiation releases from the disposal repository. The Individual Protection Requirements (Section 191.15) limit radiation doses to individual members of the public. The Ground Water Protection Requirements (Section 191.16) protect potable sources of ground water by limiting radiation levels in underground sources. The Individual and Ground Water Protection Requirements are applicable within the accessible environment and are used in evaluating the undisturbed performance of the repository. Compliance with these requirements is to be determined by means of long-term modeling projections of disposal system performance.

Shortly after the standards were issued, several states and environmental groups mounted legal challenges to them. On July 17, 1987, a federal court returned the standards to the Agency for reconsideration. The WIPP Land Withdrawal Act reinstated all of the sections of the 40 CFR Part 191 disposal standards returned by the court except those that the court found problematic, i.e., aspects of the Individual and Ground Water Protection Requirements, which EPA then revised.

## **The Revised Standards**

EPA published proposed amendments to the Individual and the Ground Water Protection Requirements in the *Federal Register* on February 10, 1993. The Agency held hearings in New Mexico that same month to receive comments on the proposal. Following consideration of all written and oral comments received, EPA developed the final disposal standards, which the Administrator signed on December 3, 1993, as an amendment to 40 CFR Part 191. The standards were published in the *Federal Register* on December 20, 1993.

The timeframe for assessment of the Individual and the Ground Water Protection Requirements was changed from 1,000 to 10,000 years. For the undisturbed performance of the disposal system, the amended Individual Protection Requirements require radioactive waste disposal systems to be designed to provide a reasonable expectation that the annual radiation exposure to any individual in the accessible environment does not exceed 15 millirem committed effective dose. Also for the undisturbed performance of the disposal system, the amended Ground Water Protection Requirements state that release of radioactive materials from disposal systems must not cause the levels of radioactivity in underground sources of drinking water in the accessible environment to exceed the maximum radionuclide contaminant levels as those levels were specified in 40 CFR Part 141 on January 19, 1994.

## **40 CFR Part 194: Criteria for the Certification of Compliance with the 40 CFR Part 191 Disposal Standards**

The Act requires EPA to certify that the WIPP complies with the Agency's final radioactive waste disposal standards (Subparts B and C of 40 CFR Part 191) before DOE may begin to dispose of transuranic waste in the WIPP. Under the Act, EPA is required to issue criteria upon which the Agency will base its determination of the WIPP's compliance with the disposal regulations.

The final compliance criteria rule (40 CFR Part 194) was signed by the Administrator on February 1, 1996, and was published in the *Federal Register* (61 FR 5224) on February 9, 1996. The final compliance criteria contain provisions regarding: 1) the procedures to be used to certify compliance with the 40 CFR Part 191 disposal regulations; 2) the methods to be employed to ensure the adequacy and quality of data and technical analyses; 3) the assumptions on which performance assessments and compliance assessments are to be based; and 4) opportunities for public participation in the certification process.

The Agency promulgated the final rule on compliance criteria after consideration of public comment on the proposed rule. In addition to the traditional method of soliciting the public's written comments during a set public comment period, EPA obtained public comment in several other ways. For example, in February 1995, the Agency hosted a technical workshop in Washington, DC, to discuss several key compliance issues. The workshop was open to the public and involved the participation of experts in several technical disciplines, as well as stakeholder representatives. EPA also held three public hearings in New Mexico (Albuquerque, Carlsbad and Santa Fe) in March 1995 to hear testimony on the proposed rule from the public.

EPA reopened the public comment period on the proposed rule in July 1995, after DOE submitted a draft certification application to EPA, for the purpose of affording stakeholders an additional opportunity to voice concerns about the proposal. During the additional comment period, EPA held a meeting of the WIPP Review Committee of the NACEPT. This meeting was held in Albuquerque, NM, in September 1995 and was also open to the public.

In preparing the final compliance criteria, the Agency considered the comments it received during both public comment periods, the technical workshop, and the NACEPT meeting. The final rule was published in the *Federal Register* in February 1996. The Agency's rationale for substantive changes to the proposed rule is described in detail in the preamble to the final rule and the Response to Comments document.



Three separate lawsuits on the final compliance criteria rule were filed against the Agency in April 1996 by the Attorney Generals of New Mexico and Texas, two environmental groups, and two citizens in New Mexico. The lawsuits have been consolidated into a single case currently pending before the United States Court of Appeals for the District of Columbia Circuit.

## **Certification of Compliance with the 40 CFR Part 191 Disposal Standards**

Current law requires that EPA must certify that the WIPP facility complies with the final 40 CFR Part 191 disposal regulations before DOE may place transuranic waste in the WIPP for disposal. If WIPP is certified, EPA must recertify compliance with the disposal regulations every five years after disposal operations begin and throughout the facility's operational life, which is expected to be about 35 years. This section describes EPA's progress in reviewing DOE's Compliance Certification Application documents.

To date, EPA has provided DOE with over 450 pages of comments on WIPP compliance-related documents. In the spring of 1993, DOE provided its 1992 performance assessment report to EPA. In response, EPA furnished comments to DOE in July and October 1994. In the summer of 1995, DOE provided EPA with a preliminary draft Compliance Certification Application. The Agency sent general comments to DOE on the draft application in October 1995, and specific comments in January 1996. Throughout the spring and summer of 1996, DOE again submitted to the Agency draft chapters of its Compliance Certification Application. The EPA responded with six sets of general and detailed comments in August 1996.

EPA will utilize the compliance criteria (40 CFR Part 194) to assess the adequacy of DOE's final application, submitted in October 1996, for the WIPP's compliance with the 40 CFR Part 191 disposal regulations. EPA's evaluation will include, but will not be limited to: DOE's use of models (conceptual, mathematical, numerical, and computer); the potential for disruptive events that could affect the WIPP's performance over the 10,000-year regulatory timeframe; uncertainty and sensitivity analyses; consequence analyses; field data; and quality assurance procedures. EPA will also evaluate the assumptions underlying DOE's performance assessment.

EPA published "Compliance Application Guidance" in March 1996 to be used in conjunction with the 40 CFR Part 194 compliance criteria. The document will guide the Agency's review of DOE's certification and recertification applications for completeness (i.e., submission of all required information and supporting documentation). The guidance was intended to assist DOE in the preparation of the Compliance Certification Application and to assist EPA's in its review of the application for completeness.

The Land Withdrawal Act requires EPA's certification of compliance to be conducted under the rulemaking process prescribed by 5 U.S.C. Section 553 of the Administrative Procedure Act. After public hearings and consideration of comments, EPA will make a final determination regarding whether or not WIPP complies with the radioactive waste disposal regulations.

## **Review Activities**

Over the past several years EPA staff conducted extensive reviews of DOE technical documents in an effort to prepare for the Agency's review of the DOE's Compliance Certification Application. Staff familiarized themselves with relevant technical information and developed expertise in key areas related to the performance of the WIPP facility by means of the activities listed below.

EPA reviewed and commented on important reports containing DOE's technical bases for achieving compliance with both the Resource Conservation and Recovery Act (RCRA) and the 40 CFR Part 191 Disposal Standards. Comments were provided to DOE that identified areas that the Agency believes are in need of further work or clarification. Comments were submitted on the following documents: 1992 Preliminary Performance Assessment of the WIPP (Volumes 1-5); Compliance Status Report; Quality Assurance Program Plan; and the Experimental Program Plan. DOE submitted Part 1 of a draft Compliance Certification Application in March 1995. Part 2 was submitted in July 1995. EPA sent general comments on the draft application to DOE in October 1995, and sent specific comments in January 1996. Finally, EPA conducted a preliminary review of a draft final Compliance Certification Application in August 1996 and sent comments to DOE. All comments on DOE documents were promptly placed in the public dockets.

During FY 96, EPA conducted several "open" technical exchange meetings with DOE to discuss technical issues relevant to the Agency's evaluation of DOE's application. Topics of discussion at the technical exchange meetings included: DOE's actinide source term program; the WIPP waste information system; scenario development and screening methodology used by DOE in its WIPP performance assessment; Culebra hydrogeology; passive institutional controls and engineered barriers; and Castile brine reservoir estimates and fluid injection activities. The information obtained at these meetings supplements and enhances EPA staff's knowledge of the WIPP facility.

Additionally, EPA observed various DOE program audits and data qualification activities, reviewed and commented on DOE's WIPP quality assurance documents, and prepared to evaluate DOE's QA programs.

EPA staff continue to study Performance Assessment computer codes in order to update the latest EPA Users' Manual. These codes, a critical component of the Compliance Certification Application, are used to project the behavior of the facility throughout the 10,000-year regulatory timeframe. Advance identification of potential concerns with the computer models expedites EPA's review of the final Compliance

**Certification Application.** In addition, EPA also conducts independent analyses to verify DOE's approach to performance assessment in the Compliance Certification Application. An example is EPA's analysis of the 1992 WIPP Performance Assessment's use of data related to the Castile brine reservoir, which underlies the waste panels. Major areas of technical review involve data and parameters, scenario screening, conceptual models, computer codes and their implementation of conceptual models, site characterization, and waste characterization.

DOE delivered the Compliance Certification Application to EPA on October 29, 1996. During FY 97 EPA will engage in an intensive review of the CCA in order to reach a decision on certification of the WIPP. This review will begin with a determination that the final CCA contains all documentation and references necessary for EPA to conduct its technical analyses of the application. EPA has requested additional information and analysis from DOE, so that EPA can determine that the CCA is complete and conduct its technical review. EPA expects to make its decision on the application by Spring of 1998. This date is subject to change depending on when DOE submits the additional EPA-requested information.

## **Guidance for Implementation of EPA's Radiation Protection Standards for Management and Storage of Radioactive Waste at WIPP (40 CFR Part 191, Subpart A)**

On September 5, 1996, EPA published a notice in the *Federal Register* announcing the availability of draft guidance entitled, "Guidance for Implementation of EPA's Radiation Protection Standards for Management and Storage of Radioactive Waste at the Waste Isolation Pilot Plant." [See 61 FR 46804.] Public comments were accepted on the draft guidance for 30 days. The draft guidance, referred to as the "WIPP Subpart A Guidance," addresses requirements established in the WIPP Land Withdrawal Act and the Federal regulations at 40 CFR Part 191, Subpart A. Subpart A is a generally applicable standard that limits radiation doses to the public from management and storage of radioactive waste at disposal facilities operated by the Department of Energy.

The WIPP Subpart A Guidance is a non-binding document that interprets Subpart A for the WIPP and provides the Agency's recommendations for methods used to demonstrate and document compliance with the standard. If the WIPP is approved for use as a disposal system, the guidance will apply to activities that occur during the facilities approximately 35-year operational period, when waste would arrive at the above-ground portion of the WIPP, be unloaded and prepared for emplacement in the underground repository, and lowered down a mechanical hoist and emplaced in the mined-out repository. EPA considered public comments in full when revising the draft WIPP Subpart A Guidance. Release of the final guidance was announced in the *Federal Register* in January 1997.

## **Compliance with the Resource Conservation and Recovery Act**

Substantial portions of the wastes proposed for disposal at the WIPP are called mixed waste, containing both hazardous waste subject to the Resource Conservation and Recovery Act (RCRA) and radioactive wastes subject to the Atomic Energy Act (AEA). The WIPP, therefore, must comply with regulations developed under RCRA. This section describes EPA's implementation of RCRA requirements.

EPA authorized the State of New Mexico to carry out the state's base RCRA program and the State's mixed waste program in lieu of the respective federal programs. Therefore, the state will make determinations regarding those portions of the RCRA permit for the WIPP. EPA retains authority for those portions of the permit for which New Mexico is not authorized. EPA's Region 6 office provides oversight and technical assistance to the state in processing this permit. The state and EPA will share responsibility for enforcing the conditions of the permit.

The State of New Mexico received a RCRA permit application from DOE in May 1995. The New Mexico Environment Department is reviewing the application and is expected to issue a draft permit by late summer 1997. This permit would cover the storage and disposal of the hazardous portion of the transuranic waste expected to be disposed of at WIPP.

A major change in the way RCRA is applied to the WIPP took place in 1996. EPA's Office of Solid Waste (OSW) had been responsible for a no-migration determination for the WIPP. However, the WIPP Land Withdrawal Act Amendments signed by the President in September 1996 exempted the WIPP from the RCRA land disposal restrictions requirements. Because of this legislation, OSW terminated its review of DOE's no-migration petition. OSW will continue to provide technical assistance to the State of New Mexico and EPA's Office of Radiation and Indoor Air.

The Agency believes, and Congress agreed, that because the WIPP is subject to comprehensive regulation under the AEA, the WIPP LWA, and RCRA, demonstration of no-migration of hazardous constituents is not necessary to protect human health and the environment.

## **Compliance With Other Federal Environmental Laws**

The Act requires DOE to submit documentation to EPA every two years to demonstrate WIPP's compliance with all applicable federal environmental laws, regulations, and permit requirements, including: the radioactive waste management and storage standards (40 CFR Part 191, Subpart A); the Clean Air Act (CAA); the Toxic Substances Control Act (TSCA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and the Safe Drinking Water Act (SDWA). This documentation must be submitted throughout the disposal and decommissioning phases of the WIPP. The Agency must make a determination of compliance with these statutes, regulations, and permit requirements within six months of receiving DOE's submission.

DOE submitted its first biennial report to EPA in October 1994. After evaluation, EPA determined that the documentation did not give EPA sufficient information to verify DOE's compliance with applicable environmental laws, regulations, and permit requirements. In February of 1995, EPA provided written guidance to DOE outlining the information that should be included in the biennial report. Additional guidance was sent to DOE in June 1996. EPA is awaiting DOE's response to the guidance.

DOE's biennial report for the 1994-1996 period was received by EPA on October 30, 1996. If EPA determines that the WIPP does not comply with any applicable Federal law or regulation or permit requirement, the Agency will require DOE to develop a remedial plan.

## **Oil and Gas Lease Provisions of the WIPP Land Withdrawal Act**

The presence of oil and gas leases and potential oil and gas drilling near and underneath a portion of the WIPP has raised concerns about the possibility for human intrusion to affect the ability of the repository to contain the waste.

Section 4(b)(5)(B) of the WIPP Land Withdrawal Act calls for EPA to determine, after consultation with DOE and the Department of the Interior, whether acquisition of oil and gas leases No. NMNM 02953 and No. NMNM 02953C by the DOE is required in order for the WIPP to comply with the radioactive waste disposal standards. Under the WIPP Land Withdrawal Act, as amended, DOE may not commence emplacement of transuranic waste underground for disposal at WIPP until either DOE acquires the oil and gas leases or EPA determines that their acquisition is not required.

EPA's Region 6 office is working with EPA Headquarters to evaluate the potential effect of oil and gas drilling on the WIPP. This evaluation examines relevant technical information. EPA intends to decide whether acquisition of the oil and gas leases is required in conjunction with its current review of the pending WIPP Compliance Certification Application.

In 1996, in response to a "takings" lawsuit filed by lessees for one of the oil and gas leases, the U.S. Court of Federal Claims found the United States Government liable and awarded the lessees \$8,938,736.00 plus interest. On August 20, 1996, the United States Government filed a Notice of Appeal.



## **1996 WIPP Land Withdrawal Act Amendments, Pub. L. No. 104-201**

Amendments to the Act were signed into law by President Clinton on September 23, 1996. Changes that directly affected the EPA activities described in this report are listed below. The Amendments:

1. Removed all requirements pertaining to the test phase that DOE originally planned to conduct, then subsequently determined was unnecessary. EPA is no longer required to undertake any activity related to a test phase.
2. Required DOE to submit all chapters of the Compliance Certification Application to EPA by October 31, 1996.
3. Removed the requirements related to test phase activities that DOE remove all TRU waste from the WIPP and decommission the facility if EPA does not certify compliance within ten years of receipt of the first shipment of waste. The Amendments also repealed a provision allowing a one-time, two-year extension of the 10-year deadline if EPA decides additional time is necessary to complete the certification rulemaking.
4. Exempted transuranic mixed waste designated for disposal at the WIPP from specific hazardous waste treatment standards and land disposal prohibitions of the Resource Conservation and Recovery Act (42 U.S.C. 6924(m)), including the "no-migration determination."
5. Deleted language calling for the removal of waste from the disposal system during the disposal and decommissioning phases in the event that EPA finds DOE not to comply with an environmental law, regulation, or permit requirement, and DOE fails to prepare an adequate remedial plan.
6. Revised language on engineered and natural barriers to provide that DOE shall use both engineered and natural barriers and "any other measures (including waste form modifications) to the extent necessary at WIPP to comply with the final disposal regulations."
7. Declared the "sense of Congress" to be that DOE should complete all actions required to begin disposing of transuranic radioactive waste at the WIPP not later than November 30, 1997, provided that compliance with all applicable laws and health and safety standards has been demonstrated.

The Amendments retained EPA's authority to certify whether the WIPP complies with the Agency's final disposal regulations, and to determine whether acquisition of specific oil and gas leases by the DOE is required for the WIPP to comply with the disposal standards.

## WIPP LWA IMPLEMENTATION HIGHLIGHTS THROUGH FISCAL YEAR 1996

<u>Date</u>	<u>Regulatory Activities</u>
2/93	Radioactive Waste Disposal Standards proposed in the <i>Federal Register</i> .  Hearings on Radioactive Waste Disposal Standards held in New Mexico.  Advance Notice of Proposed Rulemaking for Compliance Criteria published in the <i>Federal Register</i> .
3/93	Draft Test Phase and Retrieval Plans received from DOE.  Compliance Criteria ANPR comment period closed.
4/93	Radioactive Waste Disposal Standards comment period closed.
5/93	WIPP Review Committee of the National Advisory Council for Environmental Policy and Technology (NACEPT) Meeting on Test Phase and Retrieval Plans held in New Mexico.
9/93	NACEPT WIPP Review Committee meeting on Compliance Criteria held in New Mexico.
11/93	Comments submitted to DOE on December 1992 Preliminary Performance Assessment for the WIPP.
12/93	Final Radioactive Waste Disposal Standards published in the <i>Federal Register</i> .
1/95	Proposed Compliance Criteria published in the <i>Federal Register</i> .  First public comment period on Proposed Compliance Criteria opened.
3/95	Hearings held on Proposed Compliance Criteria in New Mexico.
5/95	First comment period on Proposed Compliance Criteria closed.
5/95	EPA received Draft No-Migration Variance Petition from DOE.
7/95	Second comment period on Proposed Compliance Criteria opened.

- 9/95 NACEPT WIPP Review Committee meeting on Compliance Criteria Issues held in New Mexico.
- 9/95 Second comment period on Proposed Compliance Criteria closed.
- 10/95 Notice of Availability of Draft Compliance Application Guidance Document announced in the *Federal Register*.
- 11/95 Comments to DOE on Draft Compliance Certification Application
- 1/96 Second Round of Comments to DOE on Draft Compliance Certification Application
- 2/96 Final Compliance Criteria published in the *Federal Register*.
- 3/96 Compliance Application Guidance released.
- 5/96-9/96 Review of Draft Chapters of DOE Compliance Certification Application.
- 9/96 Notice of Availability of Draft WIPP Subpart A Guidance published in *Federal Register*

#### **MAJOR MILESTONES FOR FISCAL YEAR 1997**

- 10/96 DOE Compliance Certification Application received by EPA
- 11/96 Advance Notice of Proposed Rulemaking for the Certification rulemaking published in the *Federal Register*.
- 11/96 Public comment period opens on DOE's Compliance Certification Application for WIPP
- 1/97 Notice of Availability of Final WIPP Subpart A Guidance published in *Federal Register*
- 1/97 Stakeholder meetings on Compliance Certification Application issues in New Mexico
- 2/97 Hearings held on DOE's Compliance Certification Application in New Mexico

- 3/97      Public comment period closes on DOE's Compliance Certification Application for the WIPP
- 5/97      Administrator's Completeness Determination announced on DOE's Compliance Certification Application for the WIPP
- 5/97      EPA accepts and considers additional comments on Administrator's Completeness Determination
- Proposed Decision on the Certification of the WIPP
- Hearings held on Proposed Certification Decision on the WIPP in New Mexico